

BookletChartTM

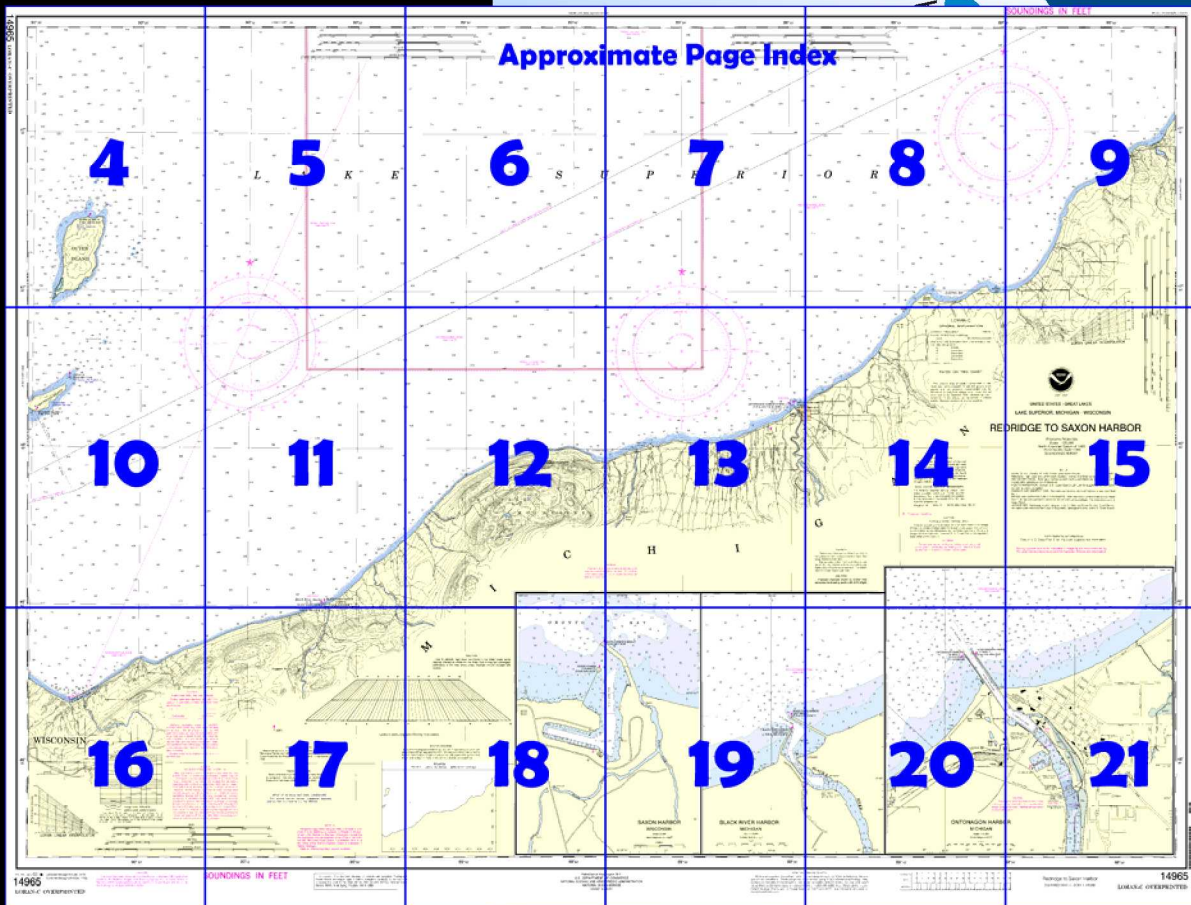
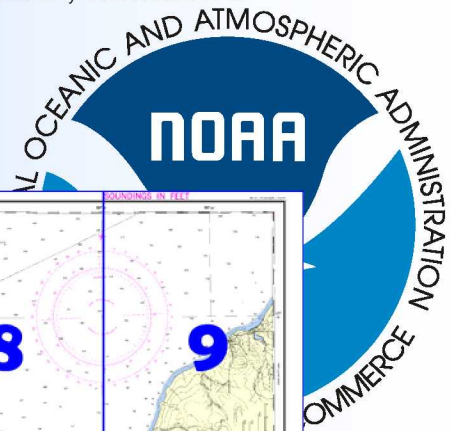
Redridge to Saxon Harbor

(NOAA Chart 14965)

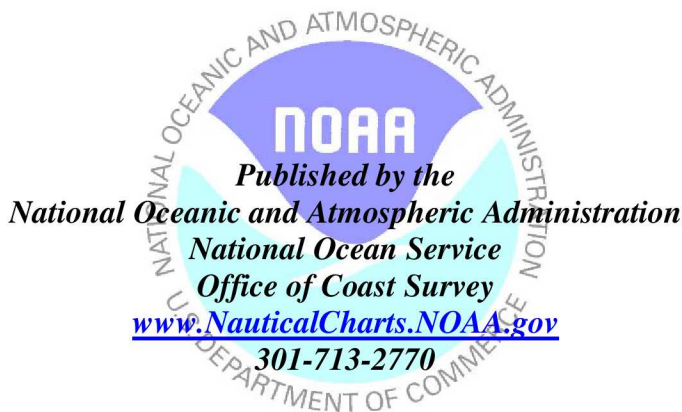


A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- ✓ Complete, reduced scale nautical chart
- ✓ Print at home for free
- ✓ Convenient size
- ✓ Up to date with all Notices to Mariners
- ✓ United States Coast Pilot excerpts
- ✓ Compiled by NOAA, the nation's chartmaker.



Home Edition (not for sale)



What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

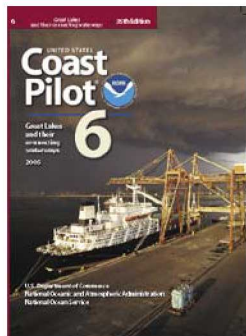
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



[Coast Pilot 6, Chapter 13 excerpts]

(210) From the Keweenaw Waterway entrance, the shore trends SW for about 41 miles to Ontonagon Harbor. None of the rivers that flow into the lake in this stretch are navigable, nor are there any docking facilities. Prominent are stacks at **Redridge**, and **Freda**, 8.5 and 11 miles SW of the waterway, respectively.

(211) **Misery Bay**, 13 miles SW of Freda, and **Sleeping Bay**, just W of Misery Bay, offer limited protection. **Fourteen Mile Point**

(46°59.7'N., 89°07.7'W.), on the W side of Sleeping Bay, is marked by a prominent abandoned lighthouse.

(212) **Ontonagon Harbor**, serving the town of **Ontonagon, Mich.**, is at the mouth of **Ontonagon River**. It is the only harbor of refuge along the 79-mile stretch from the Keweenaw Waterway to Black River Harbor. The harbor is used extensively by commercial fishermen. Coal is

received at a wharf on the W side of the river just above the mouth. A hospital is in the town. Prominent are a blue tank, stacks, and buildings at the paper company on the W side of the river mouth and a blue water tank about 1 mile SE of the river mouth.

(215) A public docking facility developed by the Michigan State Waterways Commission is in a basin on the W side of the river 0.2 mile above the highway bridge. In 1978, it was reported that local interests annually dredge the entrance and basin to a depth of 7 feet. Transient berths, gasoline, water, electricity, sewage pump-out, launching ramp, and harbormaster services. The harbormaster monitors VHF-FM channels 16 and 9. A 30-ton hoist is available.

(216) From Ontonagon, the shore extends SW for about 6 miles to the village of **Green**, thence W for about 15 miles, and thence SW for 18 miles to Black River Harbor. For 15 miles W from Ontonagon, the shore is low, and shoals extend 0.7 mile off.

(217) **Silver City, Mich.**, is a village at the mouth of **Big Iron River**, 12 miles WSW of Ontonagon. In 1978, the reported controlling depth through the river mouth was 2 feet. The river should not be attempted without local knowledge. Prominent are a 500-foot stack, upper third black, on higher ground 4.5 miles S of Silver City and a television mast 6 miles W of the village. **Union Bay**, just W of Silver City, affords limited protection.

(218) **Porcupine Mountains** rise about 2 miles W of Silver City and extend 15 miles SW with some elevations 1,200 feet above the lake. The shoal border in the vicinity of the mountains is narrow, thence at the SW end of the mountains, the shoal border widens to 0.5 mile SW to Black River Harbor. A 20-foot-high rock is close offshore 14 miles NE of Black River Harbor. None of the rivers that flow into this reach are navigable.

(221) **Black River Harbor**, at the mouth of the **Black River**, 37 miles SW of Ontonagon Harbor, offers shelter for commercial fishing and recreational craft. A park and recreation area maintained by the U.S. Forest Service are adjacent to the harbor.

(223) Facilities developed by the Michigan State Waterways Commission are in the harbor basin. The surrounding area is sparsely populated, and only a few dock spaces are along the W side of the river. Gasoline, water, electricity, sewage pump-out facilities, and a launching ramp are available.

(224) From Black River Harbor, the shore is bold for 20 miles SW to Saxon Harbor. Shoals extend about 0.3 mile from shore. **Little Girls Point**, 6 miles NE of Saxon Harbor, is the only projection along this stretch.

(225) The **State boundary** between Michigan and Wisconsin, about 1 mile NE of Saxon Harbor, follows the course of **Montreal River**. The river is not navigable.

(226) **Saxon Harbor**, 57 miles SW of Ontonagon Harbor, is at the original mouth of **Oronto Creek**.

(228) A 300-foot mooring dock with a launching ramp is on the E side of the harbor. Berths, gasoline, electricity, marine supplies, and sewage pump-out facilities are available in the harbor.

Table of Selected Chart Notes

Pump-out facilities

Corrected through NM Jan. 18/03
Corrected through LNM Dec. 17/02

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION

SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

NOTE B

Mariners should use caution as military craft may be operating within the area. For further information consult the U.S. Coast Guard Local Notice to Mariners.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.198" southward and 0.583" westward to agree with this chart.

NOAA VHF-FM WEATHER BROADCASTS

The National Weather Service station listed below provides continuous marine weather broadcasts. The range of reception is variable, but for most stations is usually 20 to 40 miles from the antenna site.

Houghton, MI WXK-73 162.40 MHz (Chon WX-2)

NOTE Z

NO-DISCHARGE ZONE, 40 CFR 140

Michigan waters of Lakes Michigan, Huron, Superior, Erie and St. Clair, all waterways connected thereto, and all inland lakes are designated as a No-Discharge Zone (NDZ). Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. Commercial vessel sewage shall include graywater. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio, or at the Office of the District Engineer, Corps of Engineers in Detroit, Michigan.

Refer to charted regulation section numbers.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

POTABLE WATER INTAKE (PWI)

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93). Consult U. S. Coast Pilot 6 for important supplemental information.

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

SUPPLEMENTAL INFORMATION

Consult U. S. Coast Pilot 6 for important supplemental information.

SOURCE DIAGRAM

Most of the hydrography identified by the letter "I" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association.

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Imagery and Mapping Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (NCS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910 - 3282.

AUTHORITIES. Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

PLANE OF REFERENCE OF THIS CHART (Low Water Datum).....601.1ft.
Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).

SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.

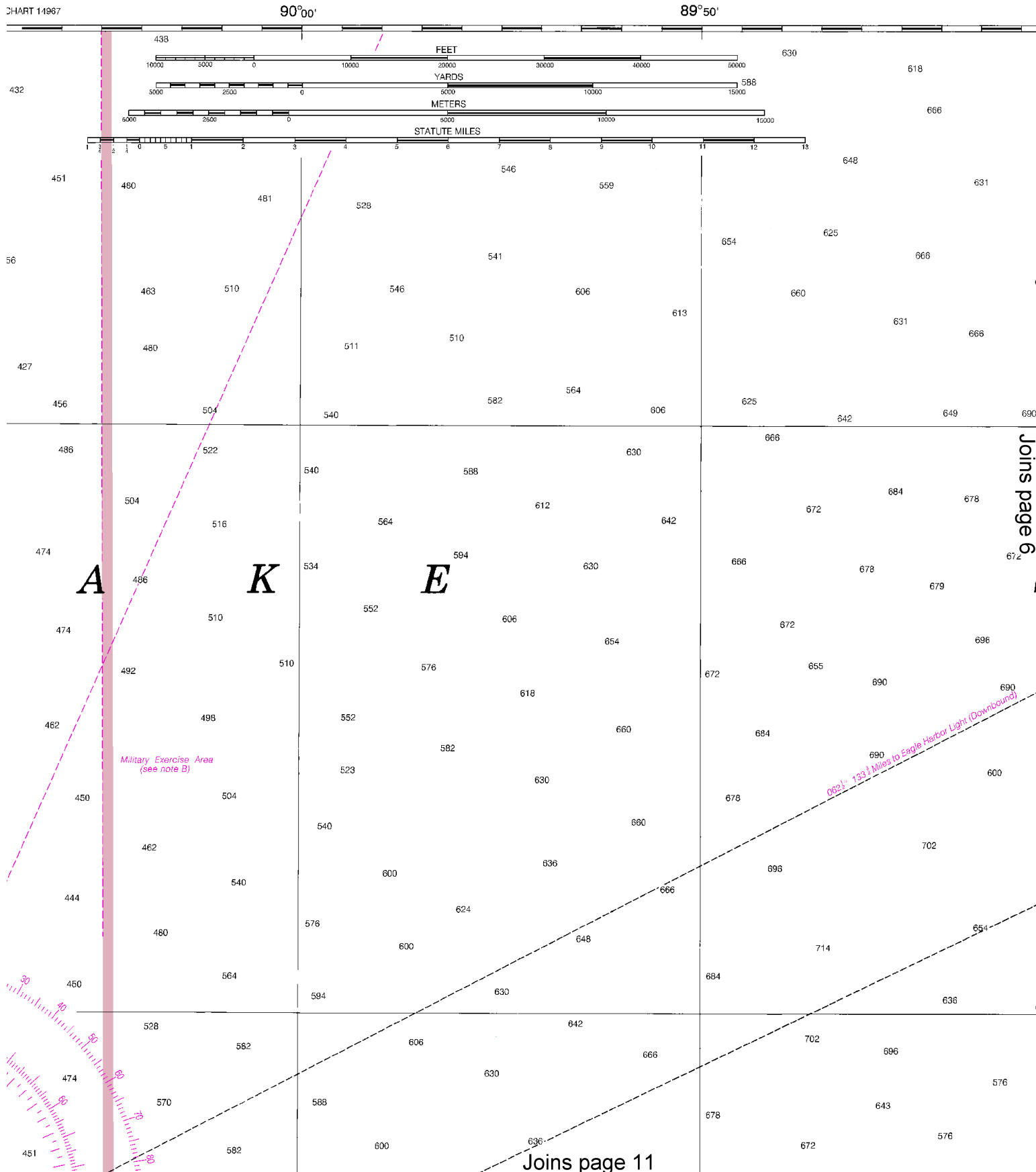
BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

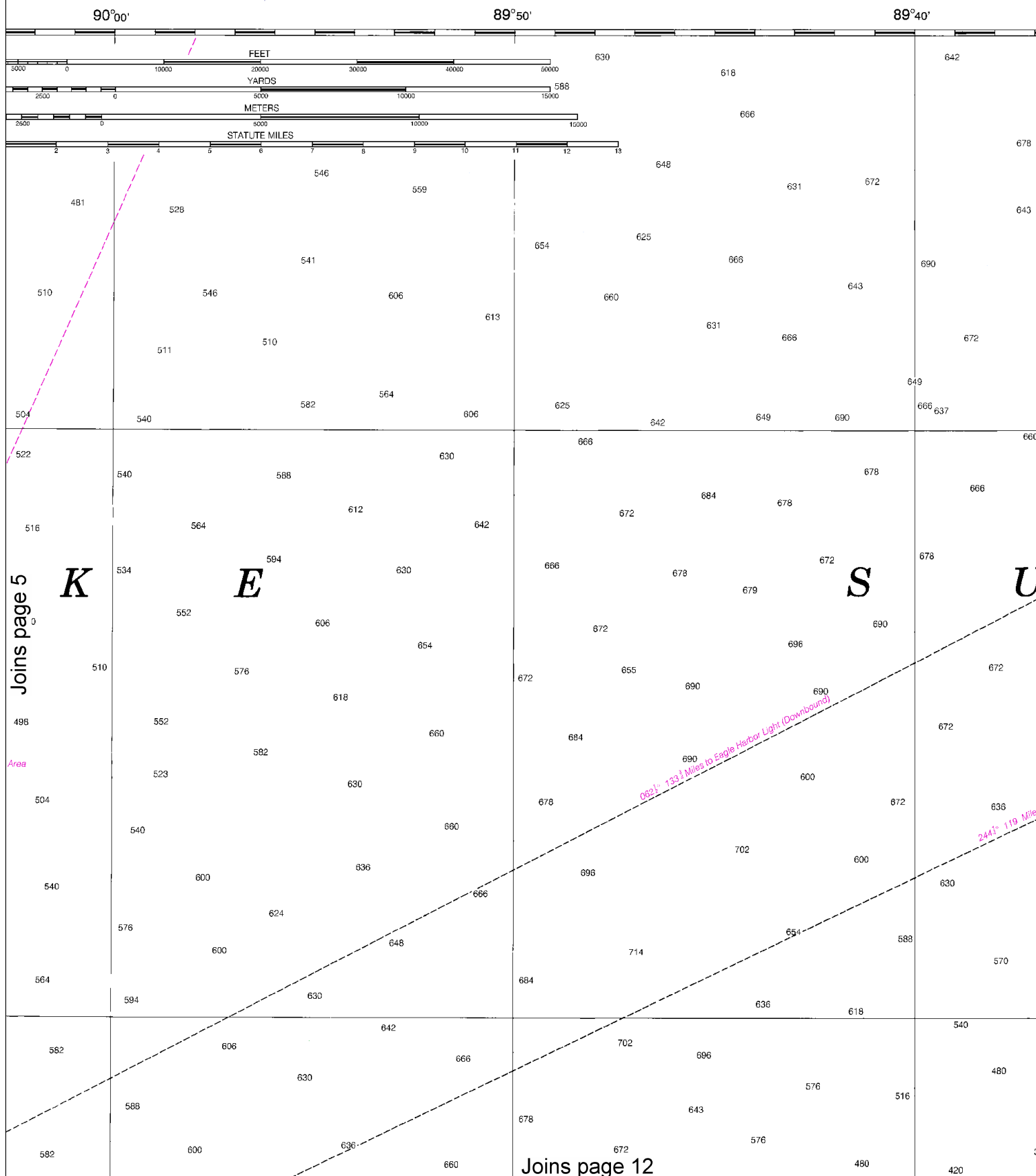
PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or help@OceanGrafix.com.



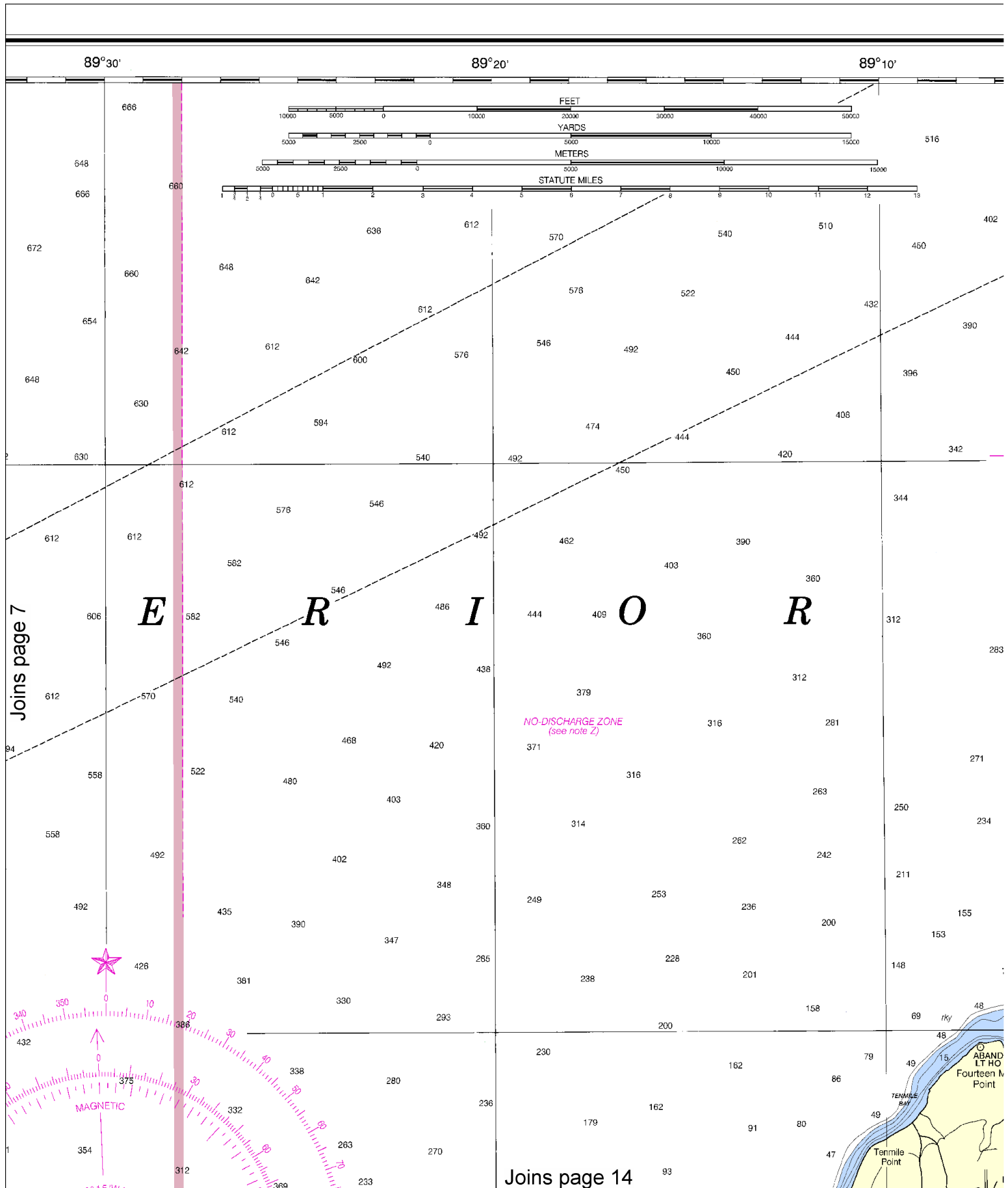


This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:160000. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.



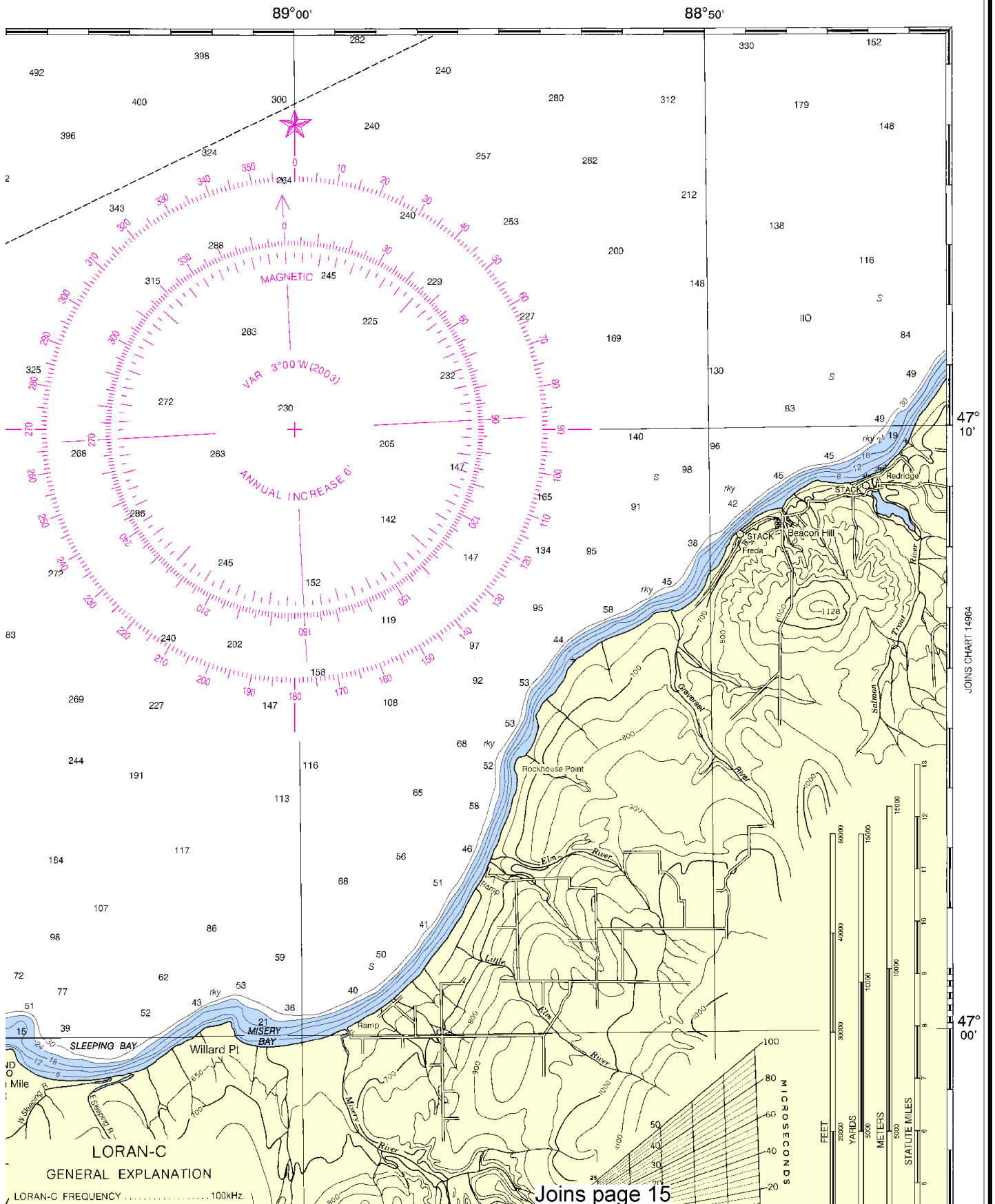


7



SOUNDINGS IN FEET

Nautical Chart Catalog No. 4, Panel B

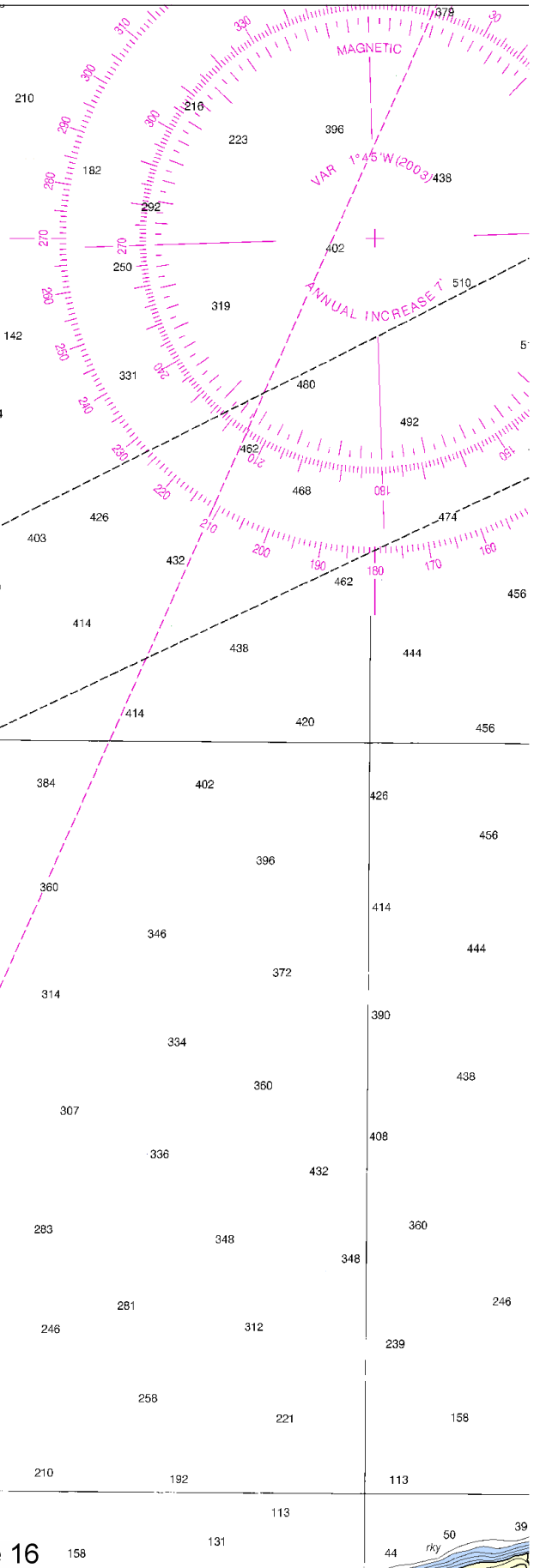
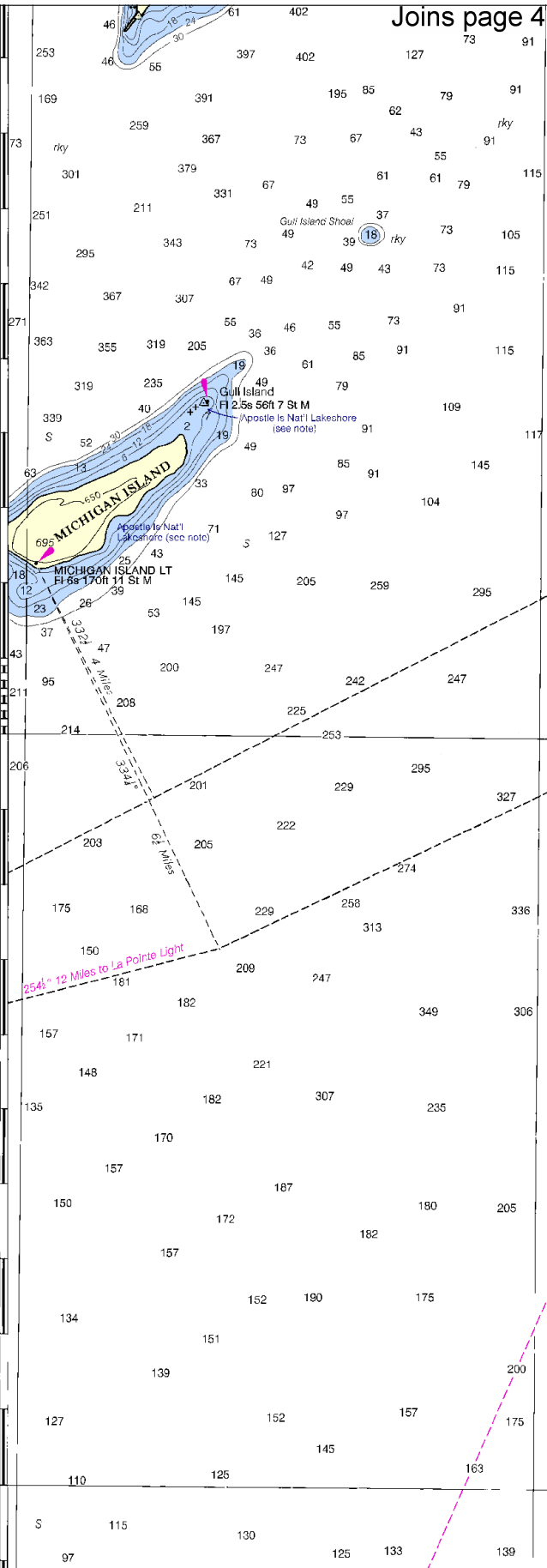


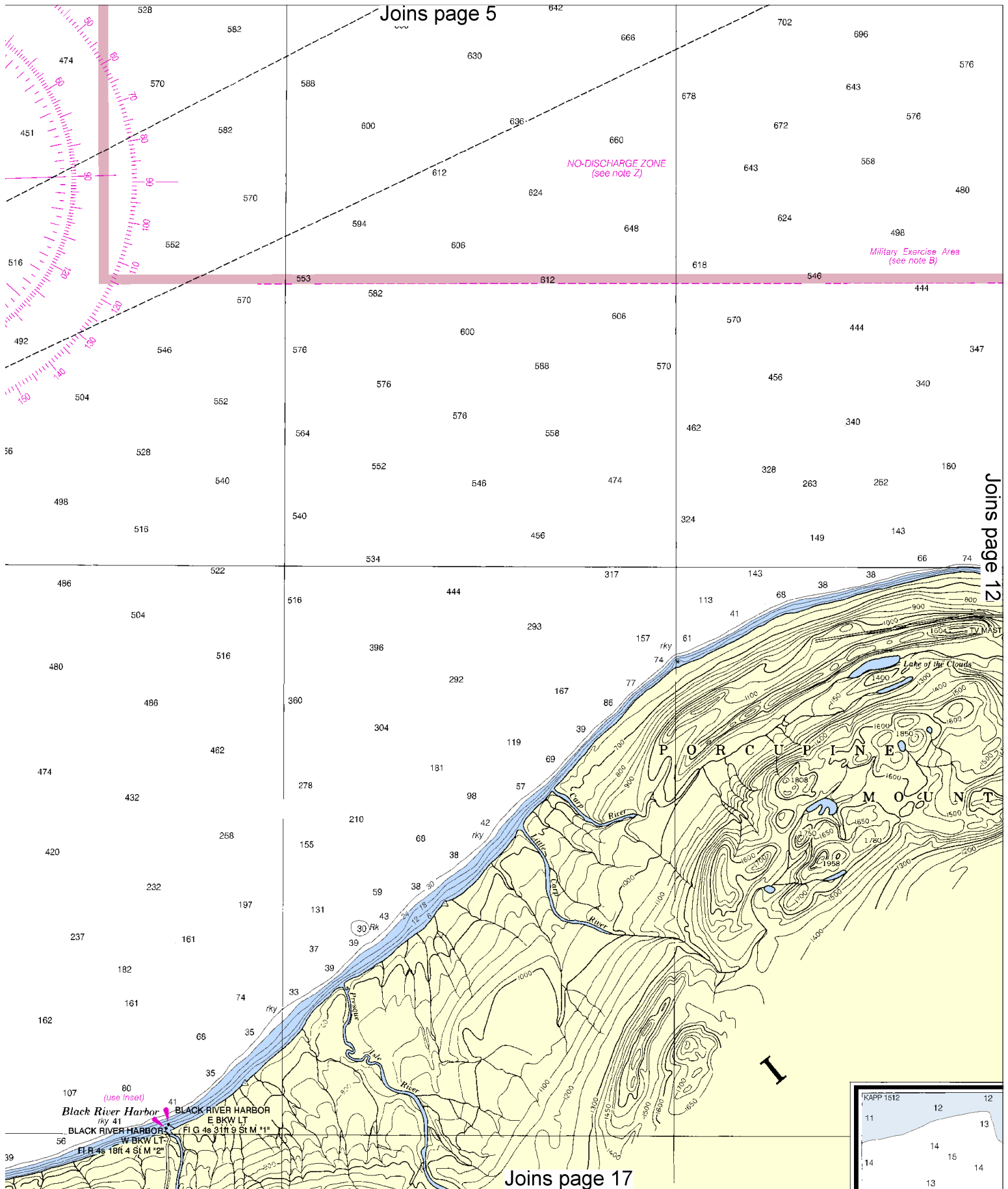
Joins page 15

JOINS CHART 14966

46°
50'

46°
40'





Joins page 6

NO-DISCHARGE ZONE
(see note Z)

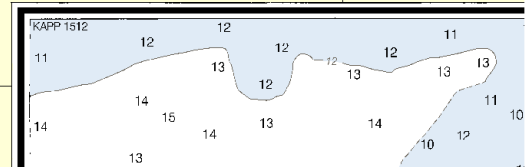
Military Exercise Area
(see note B)

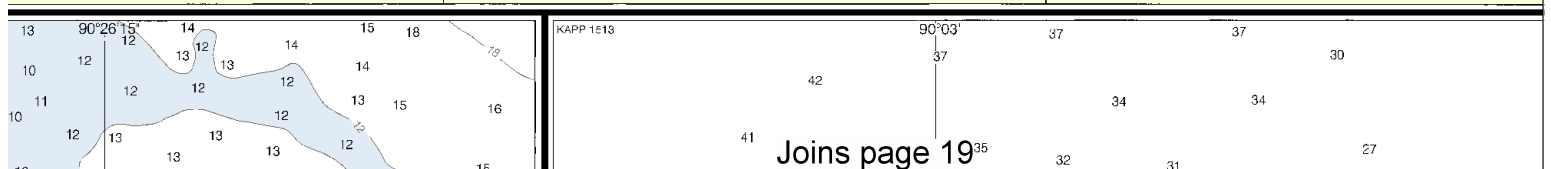
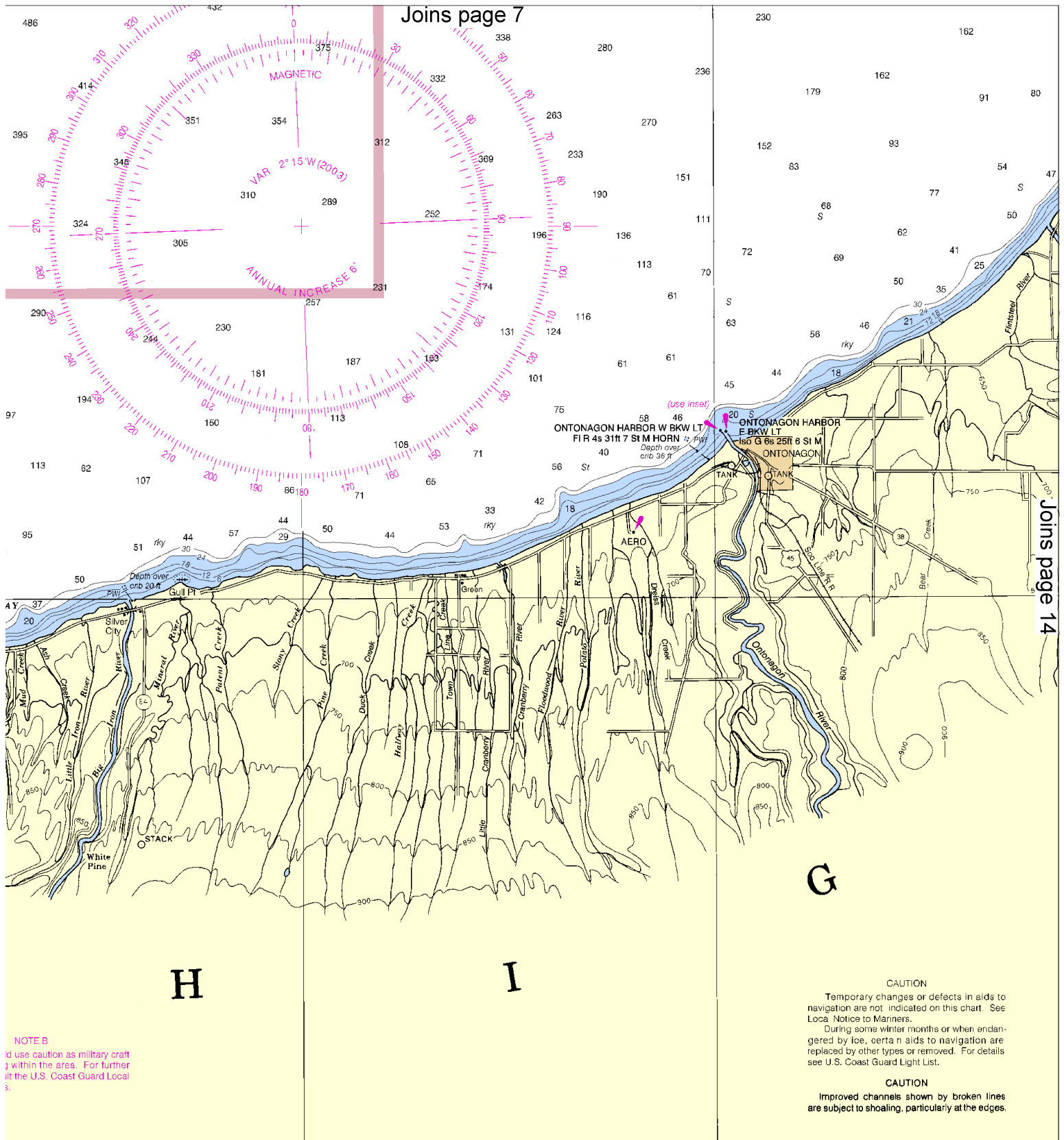
Joins page 11

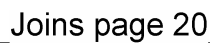
BLACK RIVER HARBOR
E BKNW LT
Fl G 4s 31ft 9 St M *1*

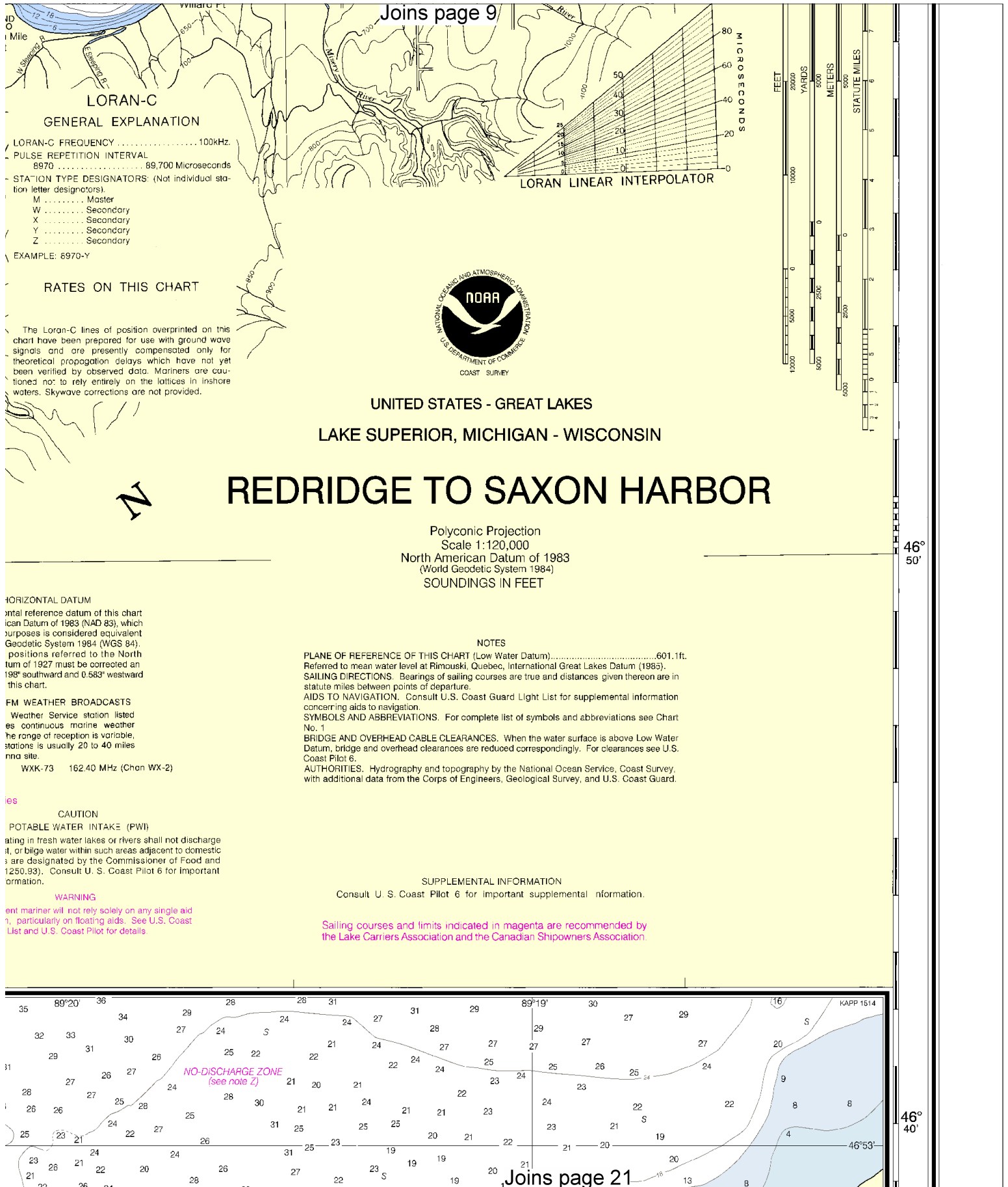
Joins page 18

12





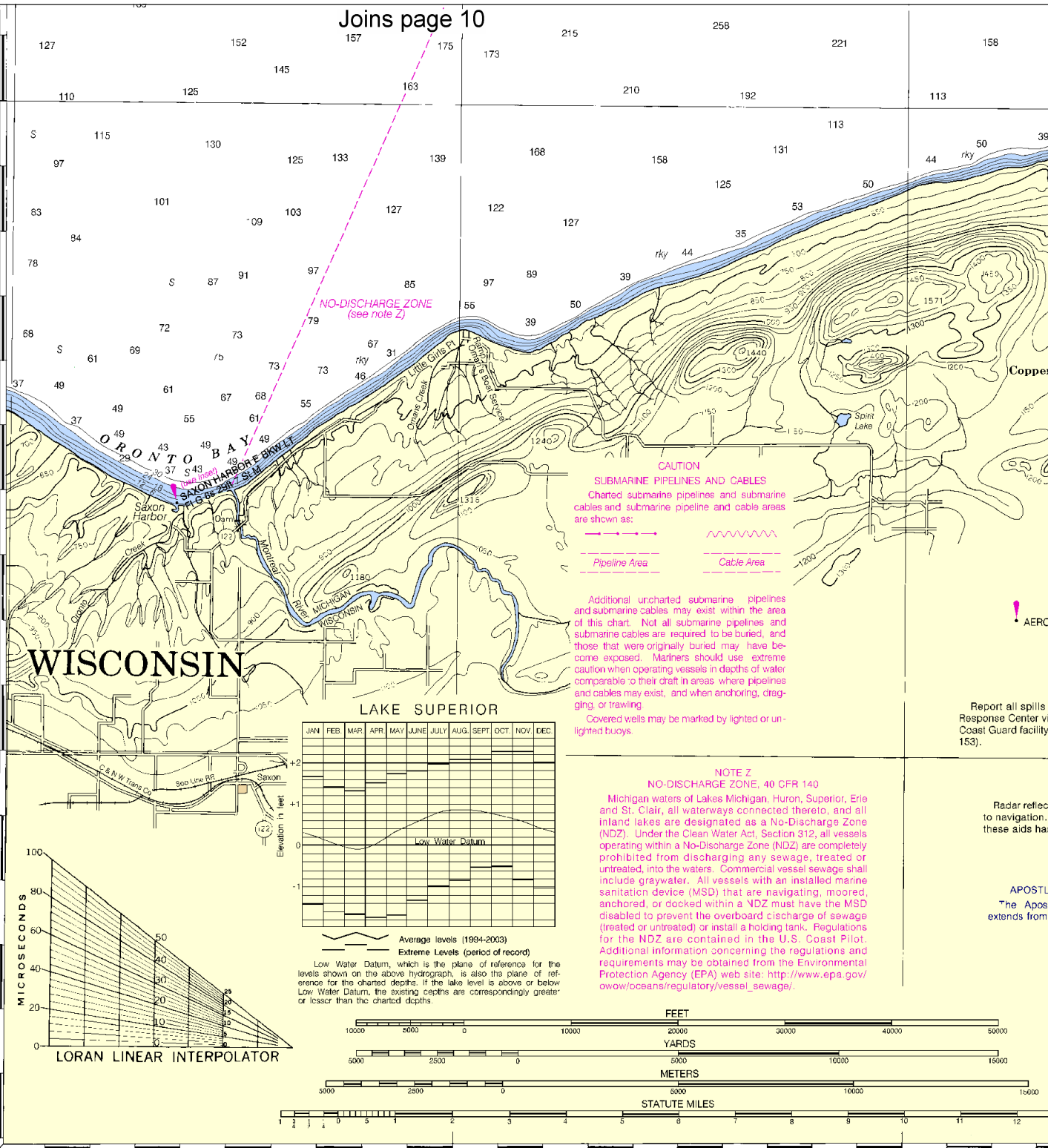




Joins page 10

46°
40'

46°
30'



21st Ed., Jan./03 ■ Corrected through NM Jan. 18/03
Corrected through LNM Dec. 17/02

14965

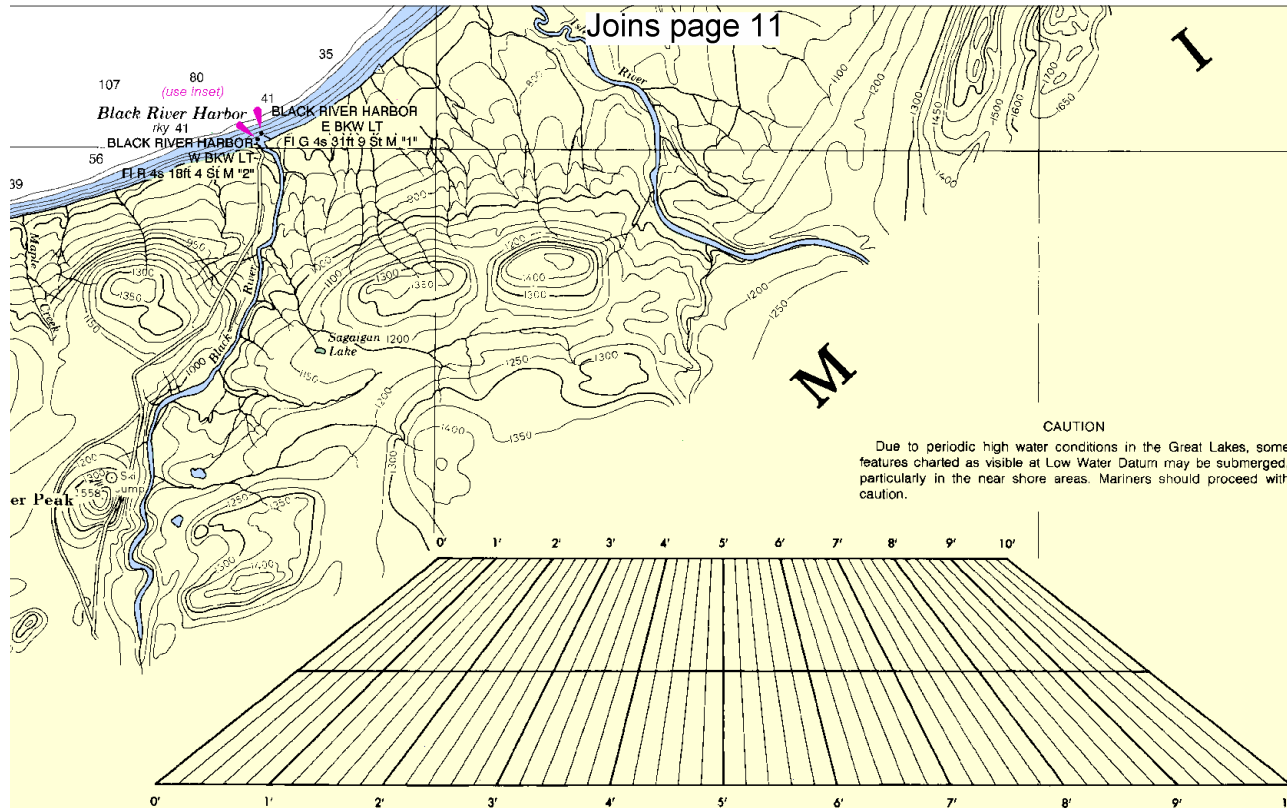
LORAN-C OVERPRINTED

CAUTION
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Imagery and Mapping Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

SOUNDINGS IN FEE

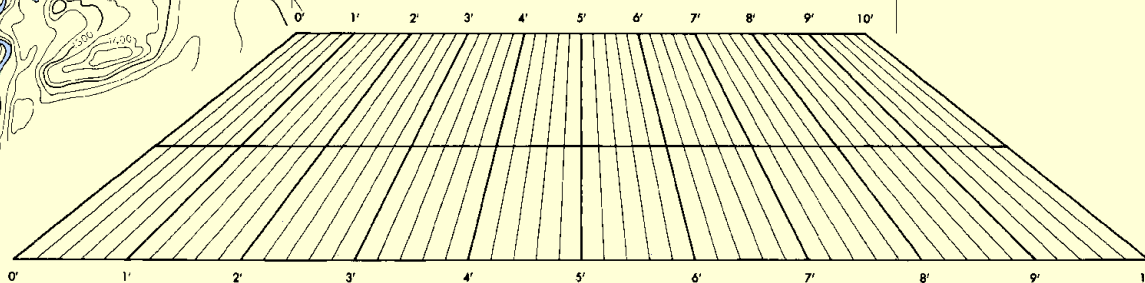
16





CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.



Latitude and Longitude Plotting Interpolator

POLLUTION REPORTS

Reports of oil and hazardous substances to the National Pollution Discharge Reporting System (NPDES) via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard District Office if telephone communication is impossible (33 CFR 155.404-155.406).

SOURCE DIAGRAM

Most of the hydrography identified by the letter "I" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed, and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

RADAR REFLECTORS

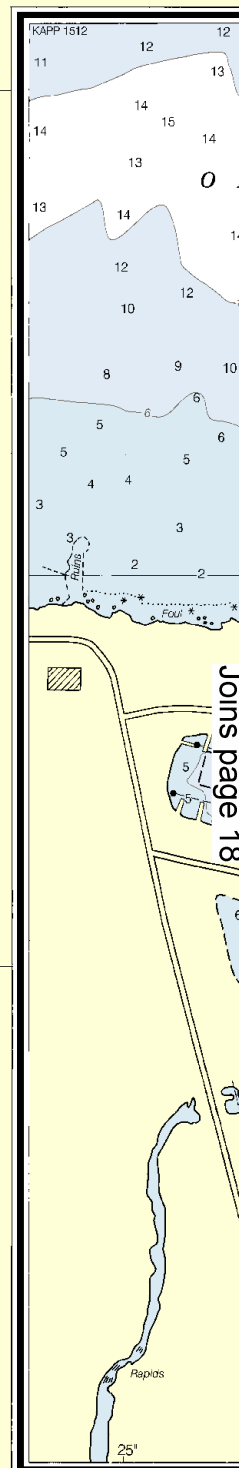
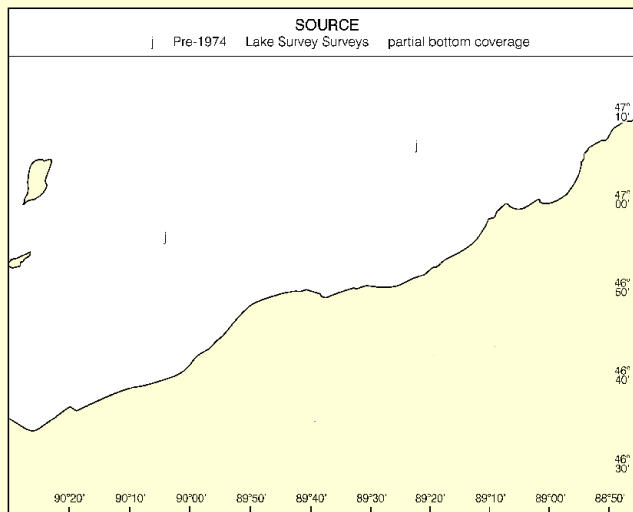
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification numbers have been omitted from this chart.

ISLE ISLANDS NATIONAL LAKESHORE

The Isle Islands National Lakeshore boundary extends from the shoreline to 1/4 mile offshore.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio, or at the Office of the District Engineer, Corps of Engineers in Detroit, Michigan. Refer to charted regulation section numbers.



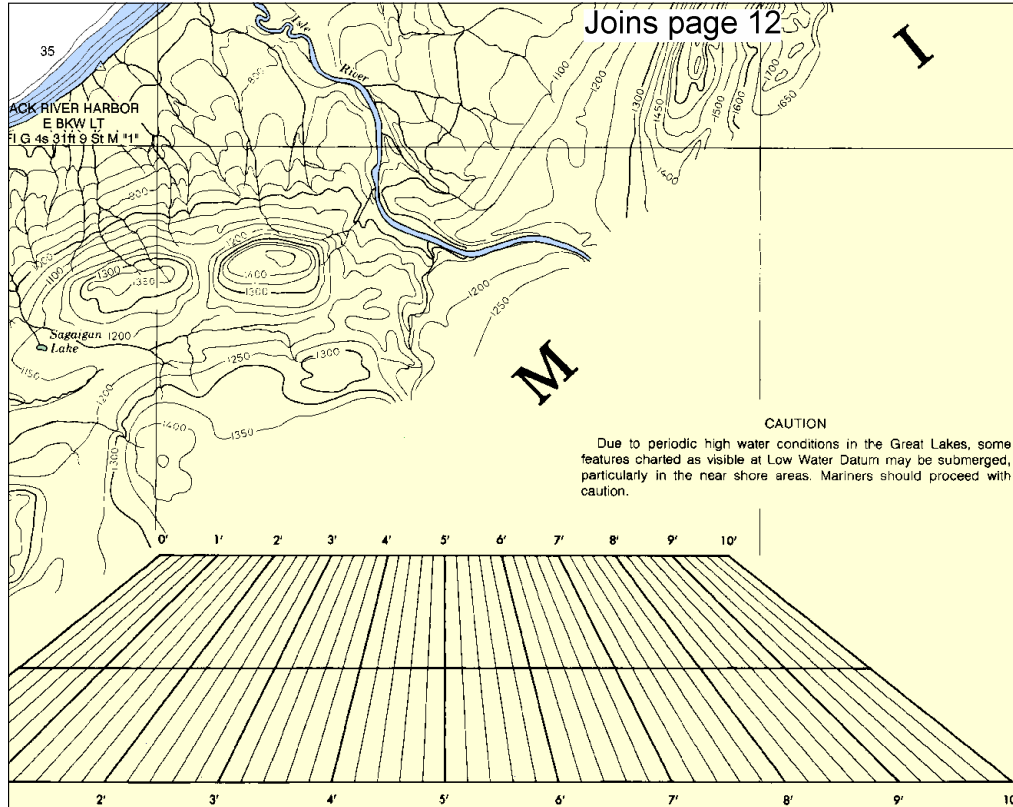
90°00'

89°50'

ET

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

Joins page 12



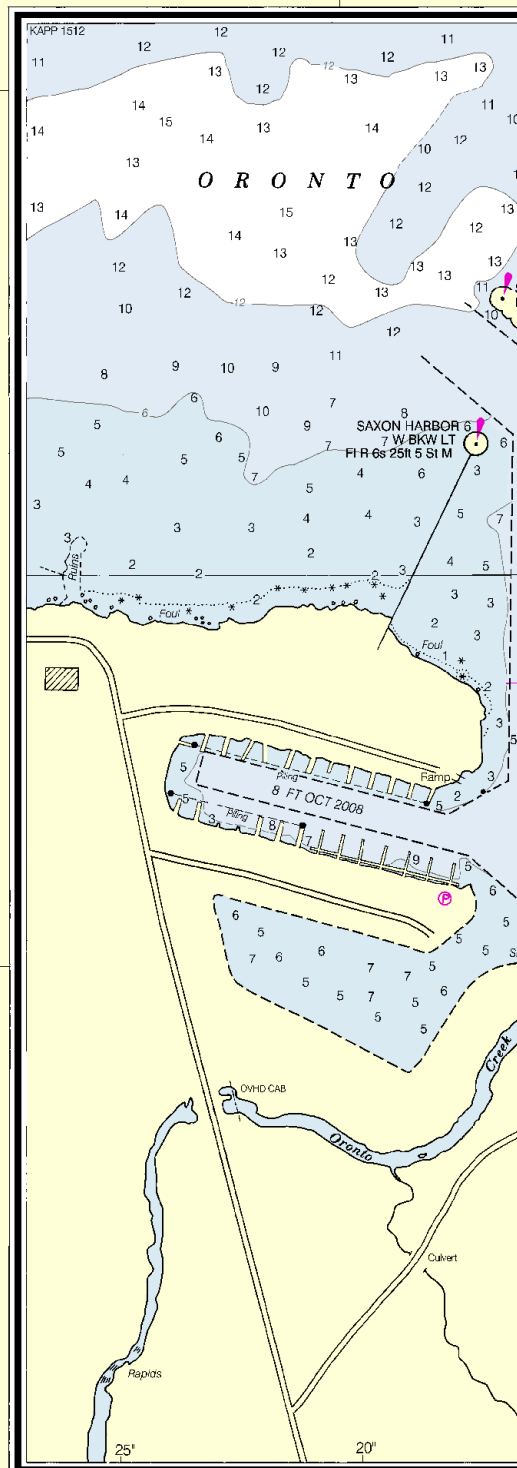
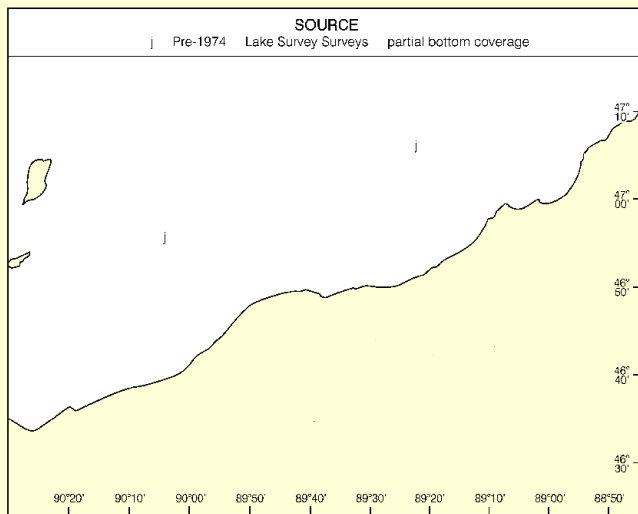
M

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

Latitude and Longitude Plotting Interpolator

SOURCE DIAGRAM
Most of the hydrography identified by the letter "J" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

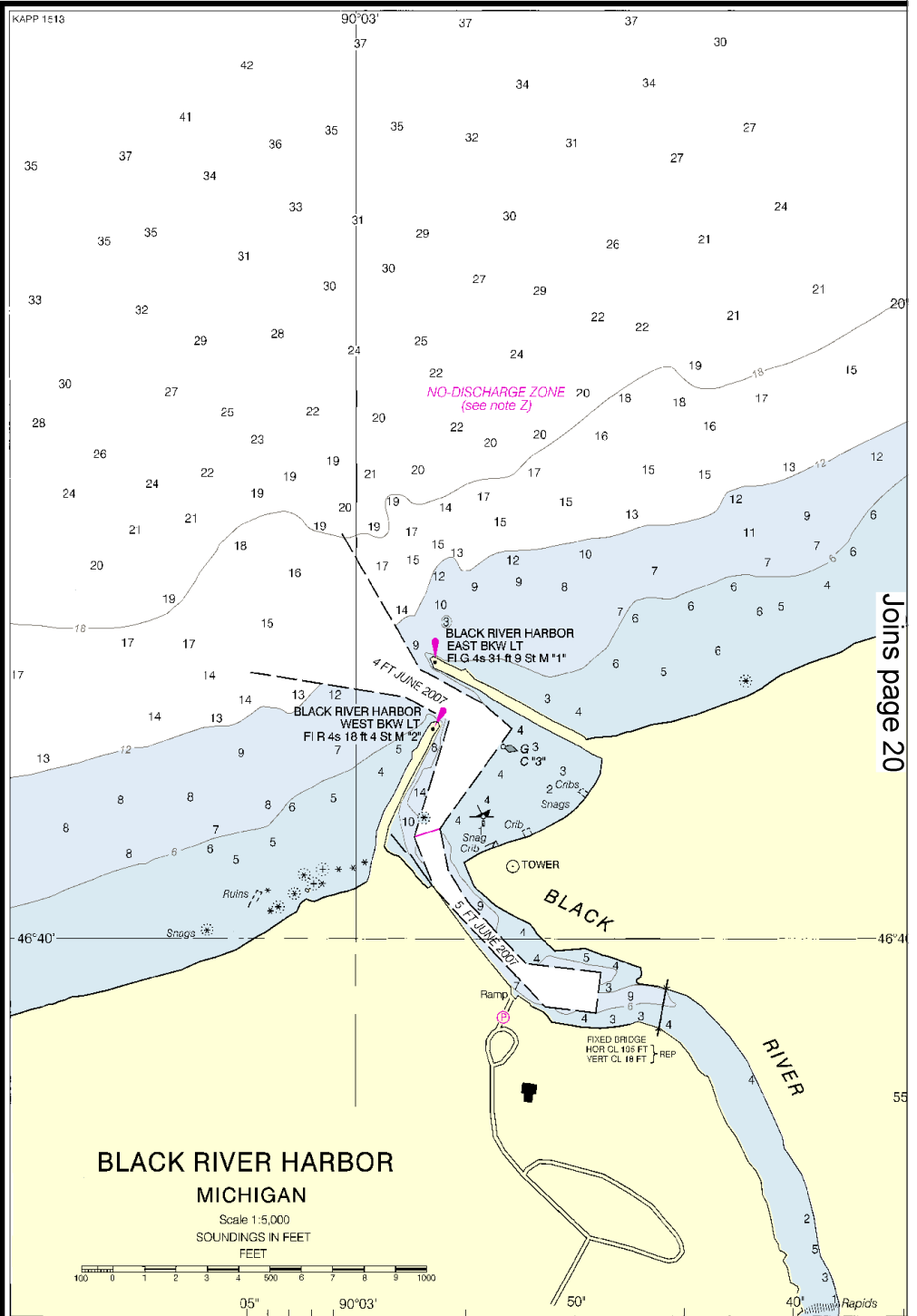
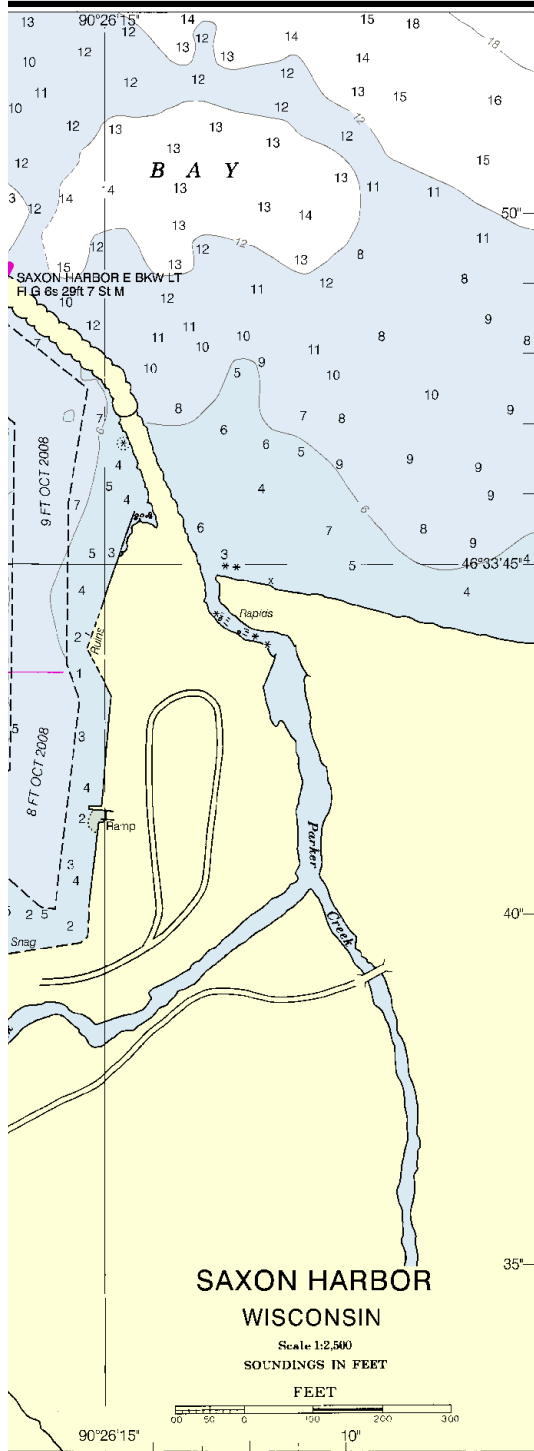


Joins page 17

E A
published in Chapter 2, U.S.
visions to Chapter 2 are pub-
lishers. Information concern-
ing this chart is available at the
Office of the Chief of the Com-
mand in Cleveland, Ohio, or at
the nearest Corps of Engineers in
the section numbers.

This chart has been designed to promote safe navigation. The National Oceanic and Atmospheric Administration encourages users to submit corrections, additions, or comments for this chart to the Chief, Marine Chart Division (N/CS2), National Oceanic and Atmospheric Administration, Silver Spring, Maryland 20910-3282.

Published at Wash-
ington, D.C.
U.S. DEPARTMENT OF
NATIONAL OCEANIC AND ATMOSPHERIC
NATIONAL OCEANIC AND ATMOSPHERIC
COAST SURVEY



89°30'

89°20'

hington, D.C.
OF COMMERCE
SPHERIC ADMINISTRATION
AN SERVICE
JRVEY

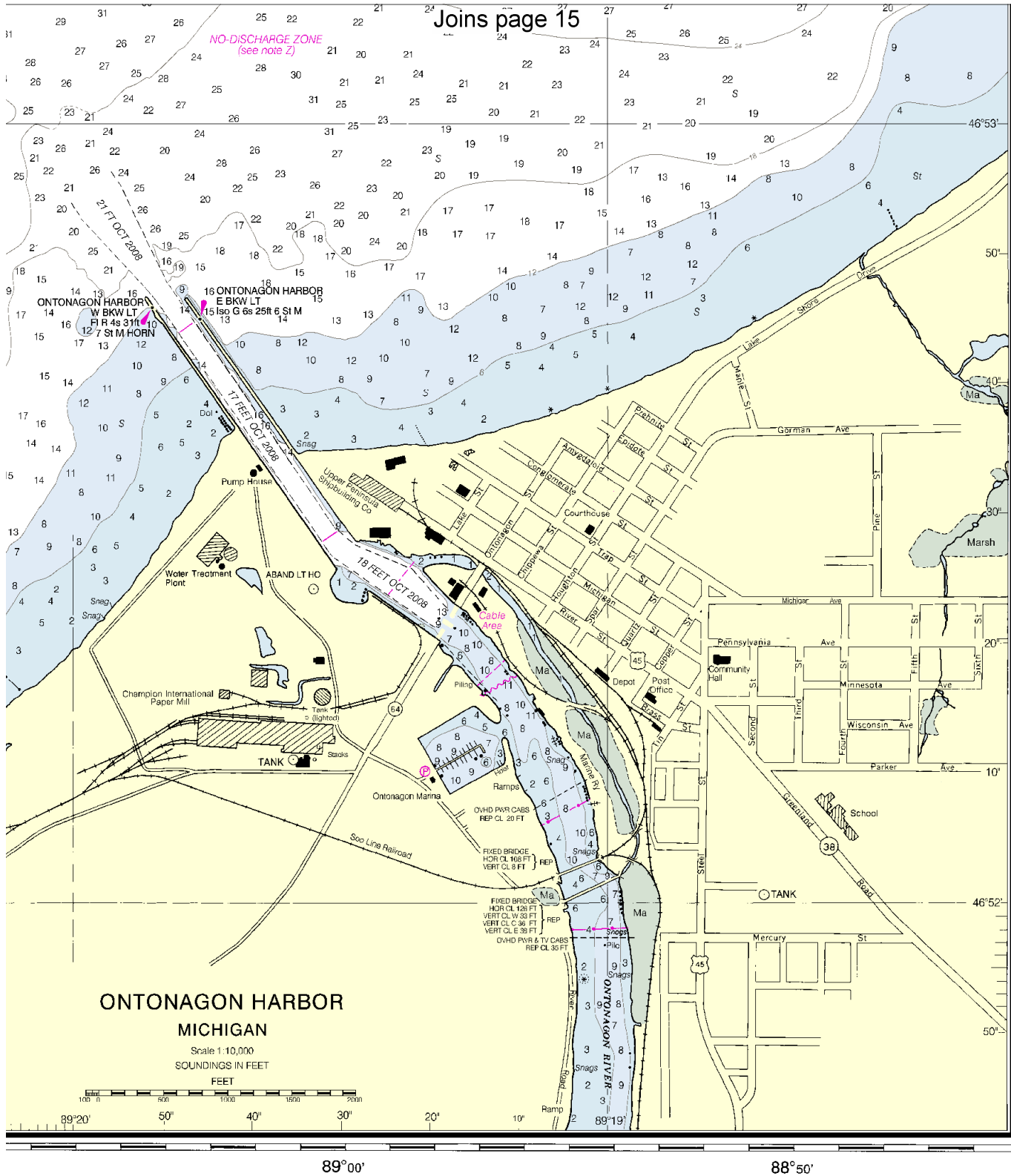
PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4663, <http://NauticalCharts.gov>, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or help@OceanGrafix.com.



NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4663, <http://NauticalCharts.gov>, or help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or help@OceanGrafix.com.

FATHOMS	1	2	3
FEET	6	12	18
METERS	1	2	3



4	5	6	7	8	9	10	11	12	13	14	15	16	17
24	30	36	42	48	54	60	66	72	78	84	90	96	102
6	7	8	9	10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29	30	31	32	33

Redridge to Saxon Harbor
SOUNDINGS IN FEET - SCALE 1:120,000

14965
LORAN-C OVERPRINTED

ED NO. 21
NSN 7642014010607
NIMA REFERENCE NO. 14XCO14965

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 & 78A – Recreational boat channels.

Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

HAVE ALL PERSONS PUT ON LIFE JACKETS !!

Mobile Phones – Call 911 for water rescue.

Coast Guard Search & Rescue (RCC) – 216-902-6117

Coast Guard S & R (Sault Ste Marie) – 906-635-3230

NOAA Weather Radio – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

Getting and Giving Help – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



NOAA CHARTING PUBLICATIONS

Official NOAA Nautical Charts – NOAA surveys and charts the national and territorial waters of the U.S, including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: www.NauticalCharts.NOAA.gov.

Official Print-on-Demand Nautical Charts – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at www.OceanGrafix.com.

Official Electronic Navigational Charts (NOAA ENC[®]) – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official Raster Navigational Charts (NOAA RNC[™]) – RNCs are geo-referenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official BookletCharts[™] – BookletCharts[™] are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be downloaded from NOAA for free and printed. The Internet address is www.NauticalCharts.gov/bookletcharts.

Official PocketCharts[™] – PocketCharts[™] are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

Official U.S. Coast Pilot[®] – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at www.NauticalCharts.NOAA.gov.

Official On-Line Chart Viewer – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. The Internet address is www.NauticalCharts.gov/viewer.

Official Nautical Chart Catalogs – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. Go to <http://NauticalCharts.NOAA.gov/mcd/ccatalogs.htm>.

Internet Sites: www.NauticalCharts.NOAA.gov, www.NOAA.gov, www.TidesandCurrents.NOAA.gov, www.NOS.NOAA.gov.